CLAIMS:

1. A method of shielding a bearing, which is mounted in a bearing casing and which supports a shaft for rotation, against undesirable matter, the method including

laterally covering a side of the bearing and the bearing casing by means of a circumferential shield rotatably fast with the shaft and having a peripheral rim at least partially overlapping the bearing casing;

when the shaft is rotating, dilating said peripheral rim to provide running clearance, and flinging any loose matter touching the shield centrifugally away from the bearing casing;

when the shaft is stationary, contracting said peripheral rim to touch the bearing casing to provide a seal.

2. A method as claimed in Claim 1 which includes shielding the peripheral rim by means of a cowl overlapping the peripheral rim.

3. A method as claimed in Claim 2 in which said overlapping of the peripheral rim is with annular clearance.

4. A method as claimed in Claim 1 or Claim 2 or Claim 3 in which touching the bearing casing when the shaft is stationary is by means of a peripheral beading inwardly proud of the peripheral rim.

5. A rotary shield assembly comprising a shaft supported for rotation in a bearing mounted in a stationary bearing casing, and a shield comprising

a rotary disc around the shaft proximate a side of the bearing;

a peripheral rim along an outer periphery of the disc and at least partially overlapping the bearing casing;

a bias mechanism biassing the rim toward the bearing casing, the arrangement being adapted, during rotation, on account of mass of the rim, to

cause centrifugal force to dilate the rim away from the casing to provide running clearance.

6. A rotary shield assembly as claimed in Claim 5 in which one of or both of the rim and the disc are of a resilient material, the resilience of the material providing said biassing mechanism.

7. A rotary shield assembly as claimed in Claim 5 or Claim 6 in which the disc and the rim are integral.

8. A rotary shield assembly as claimed in Claim 7 in which the disc and the rim are in the form of a moulding.

9. A rotary shield assembly as claimed in Claim 8 in which the moulding material is resilient to provide the biassing mechanism.

10. A rotary shield assembly as claimed in Claim 8 or Claim 9 in which the disc is reinforced or stiffened.

11. A rotary shield assembly as claimed in Claim 10 in which the disc includes an internally embedded stiffening disc moulded within the synthetic polymeric disc.

12. A rotary shield assembly as claimed in any one of Claim 5 to Claim 11 inclusive, in which the rim is a composite rim comprising an outer peripheral cowl and an inner peripheral lip which is resiliently biassed to touch the bearing casing when stationary.

13. A rotary shield assembly as claimed in Claim 12 in which the cowl circumferentially overlaps the lip with annular clearance.

14. A rotary shield assembly as claimed in any one of Claim 5 to Claim 13 inclusive in which the disc is drivingly secured to the shaft.

15. A rotary pump having a rotary shield assembly as claimed in any one of Claim 5 to Claim 14 inclusive, in which the shaft of the rotary shield assembly is provided by a shaft of the rotary pump, and in which the shield of the rotary shield assembly is mounted intermediate an impeller of the pump and a bearing casing in which the shaft is supported for rotation.

16. A rotary pump as claimed in Claim 15 in which mounting of the shield on the shaft is via a circumferential flange mounted on the shaft, the shield being secured to the flange.

17. A method of shielding a bearing, substantially as herein described and illustrated.

18. A rotary shield assembly, substantially as herein described and illustrated.

19. A rotary pump, substantially as herein described and illustrated.